

back of the neck is also black. A spot in the exact centre of the forehead just above the meeting of the eyebrows is, however, pale yellowish white. The pale cheeks and the pale sides of the neck are in this species in just as striking contrast to the dark crown as in *S. hosei*, and distinguish it equally from its near ally *S. chrysomelas*.

In the skull the differences are of course but slight, and many specimens of each would be needed before any of them could be claimed as genuinely differential characters. Comparing the type skull of *S. everetti* with that of *S. hosei*, the brain-case is longer and more flattened, the orbits are more circular in outline, and the length of the zygomata is decidedly greater. The development of the fifth cusp to the last lower molar is very much the same in both, *i. e.* much less than in *S. cristatus* and the majority of the species, but much greater than in *S. chrysomelas*, a species remarkable for the almost entire suppression of the cusp.

Dimensions of the type, an adult female in skin :—Head and body (c.) 550 millim., tail 650.

Skull—basal length 63·7, greatest length (gnathion to occiput) 94, greatest breadth 70, combined length of upper premaxillaries and molars 24, of molars only 16·2.

The type specimen was obtained by Mr. Everett's hunters at an altitude of about 3500 feet on Mount Kina-balú, in March 1892. Mr. Hose's two specimens were killed at 3000 feet on Mount Dulit in June. The species is therefore no doubt a purely mountain one, and does not, like *S. hosei*, descend to the plains. This latter species, however, also occurs at considerable altitudes on Mount Dulit, but has not as yet been certainly found on Mount Kina-balú, the skull from that mountain doubtfully referred by me to it in 1889¹ belonging very probably to *S. everetti*.

Finally, I must of course admit the possibility of intermediate specimens between *S. hosei* and *S. everetti* occurring, and the consequent necessity for the reduction of the latter form to the rank of a subspecies; but in the absence of such intermediate forms and in view of the great constancy in the coloration of *S. hosei* already noted, it seems best to give a name to the striking variation from it now described.

2. Description of a new Blennioid Fish from Kamtschatka.

By G. A. BOULENGER.

[Received October 25, 1892.]

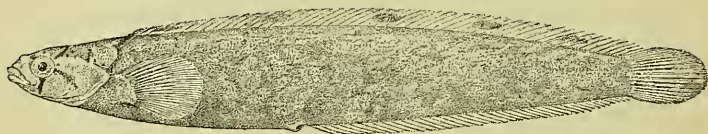
BLENNIOPHIDIUM, g. n.

Body elongate, compressed, covered with very small cycloid scales. Mouth small, horizontal, protractile, with fleshy lips; small conical teeth in jaws and on palate. No opercular spine.

¹ *T. c.* p. 160.

Gill-membranes broadly connected, but free from isthmus; branchiostegals four. Dorsal fin very long, extending from the nape to the caudal, with which it is subcontinuous; a few of the posterior rays are stiff spines, the rest being soft, though not articulate; anal fin extending from the anus, which is a little nearer the anterior than the posterior extremity, to the caudal, formed exclusively of soft rays; caudal distinct, rounded. Pectorals well developed, with 21 rays. No ventrals. No lateral line. No prominent anal papillæ. Pyloric appendages present.

As the name I have chosen for this genus indicates, this is one of those numerous forms which might almost equally well be referred to the *Blenniidae* or to the *Ophidiidae*. The presence of pyloric appendages and the absence of prominent anal papillæ might induce us to include it among the Gadoids, as defined by Günther, whilst



Blenniophidium petropauli. $\frac{2}{3}$.

the presence of spines in the dorsal fin, together with the unmistakable affinity it bears to *Cebedichthys*, indicate its correct place to be among the *Blenniidae*.

BLENNIOPHIDIUM PETROPAULI, sp. n.

Depth of body $6\frac{1}{4}$ times in total length (without caudal); length of head same as depth of body. Diameter of eye equal to length of snout, $\frac{1}{4}$ length of head, and a little more than interorbital width; maxillary extending to below anterior fourth of eye; some wide pores on the head; cheeks, opercles, and occiput closely scaled; strips of small scales on the branchiostegal membrane, between the rays. Dorsal 41 XI, continuous and subequal in depth, about $\frac{1}{3}$ as deep as the body. Anal 37. Pectoral $\frac{3}{4}$ length of head, about as long as caudal. Anus twice as far from caudal as from base of pectoral. Yellowish brown, with ill-defined darker marblings; a crescentic black line on the top of the head, from eye to eye; a black line, obliquely directed forwards, below the eye, and another, in opposite direction, from the eye to the opercle; two dark brown streaks across the nape, the second crossing the origin of the dorsal fin and extending to the base of the pectoral; dorsal and caudal fins greyish olive, lighter at the base, the dorsal with five large black spots at regular intervals; pectorals and anal colourless.

Total length 140 millim.

The single specimen, which is represented above, two thirds

natural size, was obtained by Sir George Baden Powell in Petropaulovski harbour, Kamtschatka, on Sept. 8, 1891. Before describing this fish as new I have satisfied myself, by a careful comparison with the original description, that it cannot by any means be referred to *Ophidium ocellatum*, Tilesius, which it strongly resembles in general appearance. Notwithstanding the several different names which have been bestowed upon it, this *Ophidium ocellatum*, obtained at Petropaulovski, has not been rediscovered since its description in 1811, and its affinities are altogether uncertain.

3. On some cases of Variation in Secondary Sexual Characters, statistically examined. By W. BATESON, M.A., Fellow of St. John's College, Cambridge, and H. H. BRINDLEY, M.A., St. John's College, Cambridge.

[Received November 15, 1892.]

It is a familiar fact that many insects are provided with long, chitinous horn-like processes of various shapes and forms. Such horns are sometimes present in both sexes, but more commonly they attain their chief development in the male only. Among beetles the most striking examples are found in the Lamellicorns, many of which have horns of great size on the head, or on the thorax, or on both. Analogous developments are seen in the great mandibles of the males in some Lucanidæ, of which the Stag-beetle (*Lucanus cervus*) is a common representative. In the majority of these forms the similar parts of the females are either not produced at all or are much smaller. Now in many species having these curious horns in the male sex, it has long been observed that the males are not all alike in the degree to which the horns are developed; but that, on the contrary, some of the males may bear massive horns of prodigious size, while other males of the same species have hardly any horns at all, being in fact very like females. The males with the great horns are in common parlance known as "high" males, those with the rudimentary horns being "low" males. A good series of figures illustrating the phenomenon is given by Darwin¹, and examples of such Variation in *Odontolabis* &c. are exhibited in a show-case in the Natural History Museum at South Kensington.

The phenomenon of great Variation in the development of horns present in the males as a secondary sexual character is not peculiar to beetles, though in them it perhaps reaches a climax. A similar case is presented for instance by the Common Earwig (*Forficula auricularia*), in which the terminal forceps are in some males no larger than those of the female, while in others they are three times the size.

¹ 'Descent of Man,' 1871, vol. i. pp. 368-375.